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NCBC DAVISVILLE
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LETTER AND THE U S REGION I COMMENTS ON THE DRAFT FOCUSED FEASIBILITY
STUDY FOR THE CED AREA AT THE FORMER NCBC DAVISVILLE RI
09/21/2015
U S EPA REGION I BOSTON MA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100 (OSRR 07-03)
BOSTON, MASSACHUSETTS 02109-3912

September 21, 2015

Jeff Dale, Dept of the Navy, BRAC PMO Northeast
Code 5090 BPMO NE/JD, 4911 South Broad St
Philadelphia, PA 19112-1303

Re: *"Draft focused Feasibility Study for the CED Area at the former Naval Construction Battalion Center, North Kingston, Rhode Island", July 2015*

Dear Mr. Dale:

Pursuant to §7.6 of the Davisville Naval Construction Battalion Center Federal Facility Agreement dated March 23, 1992, as amended (FFA), the Environmental Protection Agency has reviewed the subject document. Please respond to the following comments.

GENERAL COMMENT

1. EPA has determined that it would be in the best interest of the Navy to remove the Groundwater Early Action Component to this remedy and replace it with several active alternatives. An "Early Action" would be done pre-ROD. Since this FFS is to support the ROD for this OU, an "Early Action" is not the appropriate mechanism to incorporate a groundwater remedy into the ROD. A comprehensive remedy must be put into place for the Navy plume comingling with the plume with a source area on the Nike PR-58 FUDS. While we agree with the Navy that currently there are no significant source areas on Navy property, there was use of the same chemicals at the former Building 224 and therefore, most likely spillage or floor drain leakage or outright dumping, as was reported in the IAS dated 1984, may have created a small plume that may or may not remain at the site. Navy has an obligation to restore the aquifer and to clean up the plume on Navy property. An FS in accordance with (IAW) EPA CERCLA Guidance must be submitted for review.

SPECIFIC COMMENTS

2. p. i-iv Revise the Table of Contents section titles based on the comments below (based on developing groundwater, as well as soil, active remedial alternatives).
3. p. 1, §1.0 The Introduction needs to include that the Base was listed on the National Priorities List as the Naval Construction Battalion Center Superfund Site.

4. p. 1-2, ¶ 1 Replace the second sentence with a description of the active groundwater remediation alternatives to be developed.
5. p. 1-2, 2nd bull After “develops soil” insert “and groundwater.”
6. p. 1-2, 4th bull After “Assembly and Detailed Analysis of Remedial Alternatives” insert “for Soil.”
7. p. 1-2, 5th bull The bullet needs to describe Section 5 as the “Assembly and Detailed Analysis of Remedial Alternatives for Groundwater” (including active groundwater alternatives).
8. p. 1-3, 1st bull This bullet needs to describe Section 6 as the Comparative Analysis of the Soil and Groundwater Alternatives
9. p. 1-3, § 1.2 In the last sentence of the second paragraph identify what type of private property borders the site – residential, commercial/industrial, undeveloped. Is the paved walking/biking path part of a recreational facility?
10. p. 1-5, § 1.2.2 This section should also describe in more detail on site sources of the groundwater contamination (such as from Building 224 operations).
11. p. 1-7, ¶ 1 Were the contents or inside surfaces of the drums (if there were no contents) tested, and if so, what were the results?
12. p. 1-7, 1st bull please explain why the 2014 HHRE identified a soil risk, but the 1998 HHRE didn't.
13. p. 1-9, ¶ 3 Regarding PCBs, the TSCA risk-based residential standard applied at most Region 1 site is 1 ppm, so is more conservative than the RIDEM residential standard.
14. p. 1-10, ¶ 2 in this paragraph also discuss what CERCLA site contaminants (such as potentially from Building 224 operations) are present in the groundwater.
15. p. 1-10, § 1.2.5.2 although the first sentence in the first paragraph mentions ecological receptors the previous section only discuss potential exceedances of human health standards. There was no discussion of potential exceedances of ecological standards. Include a discussion of potential exceedances of ecological standards in section 1.2.5.1.
16. p. 1-12, ¶ 2 in the second to last sentence replace the second “RIDEM” with

“CERCLA.”

17. p. 1-12, ¶3 More detail should be provided as to how the determination that there was no ecological risk was made (since PCBs were identified in the soil above human health risk standards, eco-risk standards are often lower).
18. Some rationale should be provided to explain why FFS and Early Action are using the combined list of CVOCs (see page 1-12 through 1-13) – there should be CVOCs identified separately for soil and groundwater.
19. p. 2-1, §2.0 This section needs to address groundwater RAOs and GRAs, as well as those for soil.
20. p. 2-2, ¶3 In the first sentence replace “RIDEM requires that RIDEM Direct Exposure Criteria (DECs) also be met, and CERCLA requires that these requirements apply across the OU” with “CERCLA requires that more stringent State ARAR standards, in this case RI Remediation Regulation Direct Exposure Criteria (DECs), also be achieved throughout the OU.”
21. p. 2-3, ¶3 Discuss the groundwater RAOs, GRAs, and ARARs in this section.
22. p. 2-6, § 2.3.2.2 Replace “These ARARs and TBCs provide some medium-specific guidance on “acceptable” or “permissible” concentrations of contaminants.” with “The ARARs contain promulgated cleanup standards for Site contaminants. The TBCs provide guidance on developing risk-based cleanup standards”.
23. p. 2-6, § 2.3.2.3 Remove “concentrations of contaminants or” from the second sentence.
24. p. 2-6, § 2.3.2.2, and Table 2-1 and appropriate alternative Specific ARAR tables:
Include EPA's lead guidance per the OU9 ROD Table E-1.
25. p. 2-7, ¶3 Replace the fourth sentence with: “RIDEM DECs for residential exposure were also calculated to determine the extent of area where CERCLA remedial action was required.
26. p. 2-7, §2.5 Remove this section. The ARAR is the promulgated state number, not the State assessment process addressed under Rule 8.10. The Navy needs to follow EPA CERCLA guidance on how to interpret Site data and apply it to evaluating the Site.
27. p. 2-9, §2.7.1 In the last sentence of the first paragraph remove: “or RIDEM residential DECs” (the PRGs were developed in part, from the DECs, so they are not separate from the residential DECs).
28. Table 2-1, pp 2 & 3. The text in the last column should indicate how the active remedy

alternative will achieve MCLs, MCLGs, and State groundwater Remediation Regulations (unless waived as part of the TI waiver) and that the LUCs will prevent use of groundwater.

29. Table 2-2 Remove RIDEM IC regs as this is an action specific ARAR.
30. Table 2-2 Include State Coastal Zone Management Regs per the OU9 ROD Table E-2. If monitoring wells for the groundwater alternatives or active remedies for soil may occur in or adjacent to federal and/or State jurisdictional wetlands, within the 500 year coastal floodplain, at or near historic sites, or in or near endangered species habitat, location-specific federal and/or State ARARs should be included in this table.
31. Table 2-4 Remove the Rule 8.10 analysis information from the Table (see previous comment).
32. Table 2-5 Need to add Action-specific ARARs for the active groundwater alternatives to be added to the FFS.
33. Table 2-5, p. 1 For the TSCA citation, the Action to Be Taken text needs to address all of the soil alternatives, not just excavation (if PCBs are to be left in place then LUCs and monitoring will ensure there is no exposure risk to residential/unrestricted recreational receptors.
34. Table 2-5 Revise the last listed ARAR as follows:

Rules and Regulations for Hazardous Waste Management, Hazardous Waste Determination, DEM OWM-HW01-07, Rule 5.3 / Applicable / Standards for determining whether a waste is hazardous waste. Under Rule 3 of the regulations, hazardous wastes are defined as any hazardous waste as defined in 40 CFR 261.3. The standards also apply to "Rhode Island Wastes," which are defined as any wastes meeting the definition of R001 through R005 and R010 under the Rule and that do not meet any of the federal definitions of a hazardous waste. / These regulations would apply when determining whether or not a solid waste generated during remedial activities is hazardous, either by being listed, exhibiting a hazardous characteristic, or meeting the definition of a Rhode Island Waste.
35. p. 3-4, §3.2.2 In the paragraph above "Effectiveness" add a new second and third sentence: "The existing land use restrictions would need to be incorporated into a CERCLA decision document to be enforceable under CERCLA and the FFA. As part of the remedial process, more specific land use restrictions may need to be required under the CERCLA remedy to prevent unlimited recreational uses (which, under State standards, are regulated as a residential use) or to restrict activities that may be consistent

with the port facility restrictions, but pose a sufficient exposure risk from Site contaminants (such as a day care facility) or may interfere with the implementation of the CERCLA remedy.”

36. Table 3-1, p.1 Incorporate the comment above into the Screening Comment text for the “Limited Action,” “LUC” line.

“Monitoring” will be required if contamination exceeding PRGs is left in place.

Under “Containment” “Erosion Control” needs to be retained pertaining to active remedial components of any alternative (installing/O&M of monitoring wells, soil covers, ect.)

37. Please note: The following Chapter 4 Specific Comments are only made the first time there needs to be a change. Please make the appropriate changes for the other alternative language.

38. p. 4-8, §4.2.2 This alternative also needs to include monitoring (including that the protective 2’ cover remains over the contaminated subsurface soil; that there remains compliance with LUCs/Soil Management Plan; and, in coordination with monitoring that will be required for the groundwater component of the remedy, that soil contaminants are not migrating to the groundwater).

39. p. 4-8, Component 1 LUCs Remove last sentence. This is not an environmental restriction. Navy did not perform a risk assessment for port facility operation or support. There is no CERCLA standard for such a specific use restriction. The CERCLA restriction would be based on preventing residential/unrestricted recreational use, including day care facilities. Please make the appropriate change in the other alternatives.

40. p. 4-9, §4.2.2.2 In the second sentence of the first paragraph remove: “and RIDEM residential DEC by future residents” (the PRGs were developed in part, from the DEC, so they are not separate from the residential DEC) and add at the end of the sentence: “, along with maintaining 2 feet of cover over subsurface contaminated soils.” Add a new third sentence: “Monitoring will ensure the remedy remains protective.”

In the second sentence of the third paragraph insert “and contact with subsurface soils that exceed I/C standards” after “future residential development” and add at the end of the sentence: “, along with maintaining 2 feet of cover over subsurface contaminated soils.” Add at the end of the third sentence: “, and monitoring will ensure the LUC are enforced and the remedy remains protective.”

41. p. 4-10, Short-Term Effectiveness please note that for this alternative and all others that EPA has not reviewed the Navy's Sustainability Evaluation for accuracy. EPA will require Navy to implement the selected remedy in as green and sustainable fashion as possible and report on their success in the RA-complete Report.
42. p. 4-11, §4.2.3 This alternative also needs to include monitoring (including that the protective 2' cover remains over the contaminated subsurface soil and the asphalt cover remains protective; that there remains compliance with LUCs/Soil Management Plan; and, in coordination with monitoring that will be required for the groundwater component of the remedy, that soil contaminants are not migrating to the groundwater).
43. p. 4-11, ¶3 Add a new third sentence that describes that due to creating the impermeable cover stormwater requirements will also need to be met.
44. p. 4-12, §4.2.3.2 In the second sentence of the first paragraph remove: "and RIDEM residential DEC's by future residents" (the PRGs were developed in part, from the DEC's, so they are not separate from the residential DEC's). Add a new third sentence: "Monitoring will ensure the remedy remains protective."
- In the second sentence of the third paragraph insert "and contact with subsurface soils that exceed I/C standards" after "future residential development." Add at the end of the third sentence: ", and monitoring will ensure the LUC are enforced and the remedy remains protective."
45. Table 4-1, Chemical specific ARARS Include Lead Guidance per the OU9 ROD table E-1.
46. Table 4-3 Remove RIDEM ELUR regulations and place into Table 4-4. Include Coastal Zone Management Regulations in Table 4-3 per the OU9 ROD table E-2 and any other location-specific ARARS that might apply to the individual alternatives (see Table 2-2 comments, above).
47. Table 4-4 In addition to moving the ELUR regulations from Table 4-3 also include ARARS associated with maintaining 2' feet of cover over the contaminated subsurface soils (RI Sediment and Erosion Control guidance, RI Air dust standards). Monitoring well requirements can be included in the groundwater ARARS and cross referenced to the soil monitoring requirements also.
48. Table 4-6 See comments for Table 4-3.
49. Table 4-7 Include the appropriate Federal and State Requirements listed in Table E-3 of the OU9 ROD. Standards would also apply to O&M activities for the cover.

50. Table 4-9 See comments for Table 4-3.

51. Table 4-10 Include the appropriate Federal and State Requirements listed in the OU9 ROD.

On the first page revise the last listed ARAR as follows:

Rules and Regulations for Hazardous Waste Management, Hazardous Waste Determination, DEM OWM-HW01-07, Rule 5.3 / Applicable / Standards for determining whether a waste is hazardous waste. Under Rule 3 of the regulations, hazardous wastes are defined as any hazardous waste as defined in 40 CFR 261.3. The standards also apply to "Rhode Island Wastes," which are defined as any wastes meeting the definition of R001 through R005 and R010 under the Rule and that do not meet any of the federal definitions of a hazardous waste. / These regulations would apply when determining whether or not a solid waste generated during remedial activities is hazardous, either by being listed, exhibiting a hazardous characteristic, or meeting the definition of a Rhode Island Waste.

52. Chapter 5: please also see general comments above (particularly an "Early Action" is not the appropriate mechanism to incorporate a groundwater remedy into the ROD). The RAOs need to also include restoration of the aquifer for beneficial reuse in a reasonable timeframe (unless a TI waiver is used). This is an EPA designated class IIb aquifer, a potential drinking water aquifer, and as such, unless a TI waiver approach is used, must be cleaned up to drinking water standards. If a TI waiver is used, the RAO would be to reduce groundwater contaminants in order to minimize contaminant migration until the off-site source controls are implemented (and potentially until TPH contamination is removed by the State action if the TPH is intermixed with the CERCLA contaminants).

53. The following additional wells are recommended for the groundwater LTM proposed in Table 5-1 of the FSS for the CED Area:

- MW03-17I (CVOCs): This well is proposed to monitor the intermediate depth beneath the core area of the Drum Removal Area.
- MW01-10S (CVOCs): This well will monitor potential eastern migration of contamination from the Drum Removal Area.
- MW03-10D (CVOCs): This well provides coverage of the deep plume along the important southeastern migration pathway from the source area.
- MW-Z3-03 (CVOCs): This well will serve as a sentinel well for the shallow TCE plume migrating westward from the source area.

- MW-Z3-03D (CVOCs): This well is located at the southern edge of the CVOC plume in the deep overburden. It will monitor the potential southern component of the deep plume at the southern boundary of the CED area.
- MW02-11D (CVOCs): This well is located in the deep overburden aquifer at the southern edge of the CVOC plume in the deep overburden. It will monitor the potential southern component of the deep plume at the southern boundary of the CED area. It appears to be beyond the leading edge of the deep plume, and, as such, will serve as a sentinel well. A potential substitute for this well is MW02-10D, which appears to be located on southern boundary of the leading edge of the deep CVOC plume. MW02-10D would monitor increases/decreases at the leading edge of the deep plume.
- MW01-15D (CVOCs): This well is located in the deep overburden just northeast of the leading edge of the deep CVOC well. It would serve as a sentinel well to indicate if the deep CVOC plume migrates further to the northwest.
- MW02-02S (CVOCs): This well monitors the shallow zone in an area where potential upward discharge from the deep overburden and bedrock may occur. MW02-02S is located over the leading edge of the TCE plume in deep overburden and bedrock zones and will serve as a sentinel well for upward migration of the deep plume into the shallow zone.
- MW02-03S (CVOCs): This well monitors the shallow zone in an area where potential upward discharge from the deep overburden and bedrock may occur. MW02-03S is located just beyond (eastward of) the leading edge of the TCE plume in deep overburden and bedrock zones. Thus, it will serve as a sentinel well for potential upward migration of the deep plume into the shallow zone. Alternatively, monitoring of this well could be triggered after migration of the deep plume to MW02-03D is observed.
- MW01-14S/D (CVOCs): This well cluster provide coverage downgradient of the core area of the deep plume. Monitoring of the leading edge of this plume is not otherwise included in the LTM.

The above approach to long-term monitoring includes on-going monitoring in many of the key areas of the deep CVOC plume in the CED area. Ultimately, it will be necessary to demonstrate that contamination in all of these areas has fallen below remedial criteria before land use restrictions (LUCs) relating to groundwater quality can be removed. However, it appears that it may be a long time before the CVOC contamination throughout the CED Area is reduced to levels approaching remedial criteria. As a result, it may be more efficient to monitor just a few key locations that will provide an indication of contaminant levels in the CED area. Once such limited monitoring provides an indication that contaminant levels are approaching remedial criteria, a more extensive program of monitoring, including the above recommended LTM wells could be implemented to provide the groundwater quality data necessary to justify removal of the

LUCs.

54. Table 5-4 If a TI Waiver is invoke all of the chemical-specific ARARs would be waived (TBCs aren't waived – but wouldn't be included in Table 5-4). All of the groundwater standards in Table 5-4 would instead be moved to Table 5-6 and cited as both monitoring standards and the basis for requiring LUCs.
55. Table 5-5 See comments for Table 4-3. Activities, such as installing, sampling, and maintaining monitoring wells may occur within regulated resource areas (Coastal Zone, Coastal Floodplain).
56. Table 5-6 in addition (if a TI waiver is invoked) move the chemical-specific standards to the Action-specific table, include the appropriate Federal and State Requirements listed in the OU9 ROD (including those pertaining to monitoring wells).

On the first page revise the last listed ARAR as follows:

Rules and Regulations for Hazardous Waste Management, Hazardous Waste Determination, DEM OWM-HW01-07, Rule 5.3 / Applicable / Standards for determining whether a waste is hazardous waste. Under Rule 3 of the regulations, hazardous wastes are defined as any hazardous waste as defined in 40 CFR 261.3. The standards also apply to "Rhode Island Wastes," which are defined as any wastes meeting the definition of R001 through R005 and R010 under the Rule and that do not meet any of the federal definitions of a hazardous waste. / These regulations would apply when determining whether or not a solid waste generated during remedial activities is hazardous, either by being listed, exhibiting a hazardous characteristic, or meeting the definition of a Rhode Island Waste.

If you have any questions with regard to this letter, please contact me at (617) 918-1384.

Sincerely,



Christine A.P. Williams, RPM
Federal Facilities Superfund Section

cc: Richard Gottlieb, RIDEM
 Dave Barney, BEC (via e-mail only)
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